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| APPLICATION NO.                  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|----------------------------------|-------------|----------------------|---------------------|------------------|
| 09/943,748                       | 08/30/2001  | Hiroki Nakahara      | 9319S-000262        | 8473             |
| 27572                            | 7590        | 05/19/2004           | EXAMINER            |                  |
| HARNESS, DICKEY & PIERCE, P.L.C. |             |                      | RAO, SHRINIVAS H    |                  |
| P.O. BOX 828                     |             |                      | ART UNIT            |                  |
| BLOOMFIELD HILLS, MI 48303       |             |                      | PAPER NUMBER        |                  |
|                                  |             |                      | 2814                |                  |

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/943,748

Applicant(s)

NAKAHARA ET AL

Examiner

Steven H. Rao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-5, 8-10, 12, 15 and 19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 2-5, 8-10, 12, 15 & 19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of paper submitted under 35 U.S.C. 119(a)-(d), claiming priority from Japanese Patent Application Nos. 20000 -265594 filed on 9/1/2000 and 2001-236576 filed on 8/03/2001 which papers have been placed of record in the file.

### ***Request for Continued Examination Application ( RCE)***

The request filed on 03/01/2004 for a Request for Continued Examination Application (RCE) under 37 CFR 1. 114 based on parent Application No. 09/943,748 is acceptable and a RCE has been established. An action on the RCE follows.

### ***Preliminary Amendment Status***

Acknowledgment is made of entry of preliminary amendment filed 03 /01 / .2004 along with the RCE request.

Therefore Claims 2,3,4,5,8,9,10,12,15 and 19 as amended by the amendment and recited in the preliminary amendment filed on 03 /01 / 2004 along with the RCE request.

Claims 1, 6,7,11, 13-14 and 16-18 have been cancelled by the amendment.

### ***Claim Rejections - 35 USC § 103***

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPR (Applicants' admitted Prior Art shown at least in figure 8 and specification pages 2 and 3, hereinafter AAPR) and further in view of Masaki et al. (U.S. Patent No. 6,271,907, herein after Masaki).

With respect to claim 2, AAPR describes a method of manufacturing a liquid crystal display having a liquid crystal panel with a liquid crystal sealed in liquid crystal sealing-in areas disposed between a pair of substrates comprising the steps of: a liquid crystal injecting step of injecting a liquid crystal from a liquid crystal injection port into said liquid crystal sealing-in areas said liquid crystal injection port is opened in an end face of said liquid crystal panel . (AAPR fig. 8), an injection port sealing material applying step of applying injection port material to said liquid crystal injection port after injecting the liquid crystal. (AAPR fig. 8), an injection port sealing removal step of removing at least part of said injection port sealing material bleeding outside a contour of said liquid crystal panel (AAPR fig. 8) wherein said injection port sealing material removing step includes a step of absorbing said injection port material by pressing an

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absorbent material against said injection port material and absorbing said injection port material with said absorbent material. (Masaki col. 11 lines 14-15, Masaki col.6 and figs. 11A and 11 B).

AAPR does not specifically describe an injection port sealing material curing step of curing said injection port sealing material after injection port sealing material removing step.

However, Masaki, in col. 8 lines 25-30 describes an end sealing material curing step of curing said end-sealing material after said end-sealing material removing step to avoid any interaction between the extra sealant present and the liquid crystal material.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to include Masaki's curing step after the removal in AAPR's method to avoid any interaction between the extra sealant present and the liquid crystal material.

With claim 15 it repeats the steps of claims 1 and 2 above and is rejected for the same reasons as previously stated ( claim 1) and those stated above .

**B.** Claims 3 to 5, 8-10 ,12 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPR (Applicants' admitted Prior Art shown at least in figure 8 and specification pages 2 and 3, hereinafter AAPR) and Masaki et al. (U.S. Patent No. 6,271,907, herein after Masaki) as applied to claims 2, 15 above and further in view of Forlini et al. (U.S. Patent No. 3,744,126, herein after Forlini).

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With respect to claims 3 and 4, wherein said end-sealing material removing step includes a step of sucking said end-sealing material by bringing a suction jig into contact with said end-sealing material and sucking said end-sealing material into said sucking jig. .

AAPR and Masaki do not specifically describe the sucking step being carried out by a suction jig.

However Forlini , a patent from the same filed of endeavor describes in col4. 4 lines 22-23 the sucking step being performed by a suction jig to apply vacuum without bowing ( bending of the layers )

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use Forlini's suction jig as a means to perform the sucking step to apply vacuum without bowing ( bending of the layers ) ( Forlini col. 1 li es 1-10, col. 4 lines 2-30).

With respect to claim 5, wherein a step of increasing a pressure inside said liquid crystal sealing-in areas of said liquid crystal panel before said liquid crystal injecting step and a step of evacuating said liquid crystal sealing-in areas after said end-sealing material applying step and before said end-sealing material removing step. (Forilini col. 4 lines 39-40).

Claim 8 repeats the steps of claims 1 ( previously sated) and 4.

With respect to claim 9 repeats the steps of claims 1 ( previously sated) and 4.

With respect to claim 10, it repeats the steps of claims 1, ( previously sated) 4 and 8 and is rejected for reasons stated above

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With respect to claim 12, it repeats the steps of claims 1 ( previously sated) and 4 and is rejected for reasons stated above.

With respect to claim 19, it repeats the steps of claims of claim 12 and is rejected for reasons stated above.

### ***Response to Arguments***

Applicant's arguments filed on July 03, 2003 have been fully considered but they are not persuasive for the following reasons:

Applicants' first contention that APR and Masaki do not teach the removal of end sealing material before it has been cured is not persuasive for the same reasons as stated in the previous rejection , namely Further it is well settled law that selection of any order of performing process steps is prima facie obvious in the absence of new or unexpected results. (In re Bruhuas, 154 F.2d 690, 69 USPQ 330 (CCPA 1946), see also Ex parte Rubin 126 USPQ 440 (BAPI 1959).

Further Applicants' contention that the claimed method provides inherent and implicit advantages is not persuasive because , “ by removing material prior to curing ..it becomes easier to position other elements such as polarizers onto the substrate because there is no excess sealing material present and the liquid crystal panel may be more easily positioned within a case body” is not persuasive . Further it is noted that because claim 1 recites removing the end sealing material before curing and claim 6 recites removing the end sealing material after curing it is not understood how the

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claimed method provides inherent and implicit advantages that are found in removing material only prior to curing.

Applicants' contention that their invention involves absorption it not persuasive because AAPR and Masaki both also when their material is wiped absorption will also occur.

Applicants' contention that their injection port is open is not persuasive because in both Masaki and AAPR the ports are also open till the processing is complete.

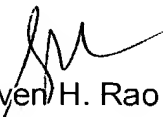
Dependent claims 3-5, 7, 11 and 14 were alleged to be allowable because of their dependency upon allegedly allowable claim 2.

However as shown above claim 2 is not allowable.

Therefore claims 3-5,7,11 and 14 are also not allowable.

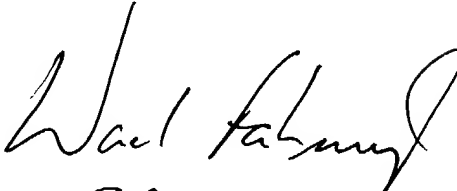
Any inquiry concerning this communication or earlier communication from the examiner should be directed to Steven H. Rao whose telephone number is (571) 272-1718. The examiner can normally be reached on Monday- Friday from approximately 7:00 a.m. to 5:30 p.m.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956. The Group facsimile number is (703) 308-7724.

  
Steven H. Rao

Patent Examiner

May 04, 2004.

  
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